What is Claimed:

1. A method for detecting the presence of a residual amount of corrosion inhibitor on a copper surface subjected to a cleaning solution containing a corrosion inhibitor comprising exposing said copper surface to a reactant that will attack said copper surface causing a pronounced color change of said copper surface, said color change indicating an absence of said corrosion inhibitor on said copper surface.

2. A method according to claim 1 including using a gaseous reactant.

3. A method according to claim 2 including exposing said copper surface to hydrogen sulfide gas.

4. A method according to claim 2 including introducing acetic acid into a solution of sodium sulfide in deionized water at room temperature to generate hydrogen sulfide gas as said reactant.

5. A method for determining the presence of residual corrosion inhibitor on copper surfaces or copper components of a microelectronic device having been subjected to a cleaning prior to a subsequent fabrication operation comprising:

including a sacrificial copper coupon or test piece in a group or batch of said devices during said cleaning process;

removing said test piece from said batch and exposing said test piece to a gaseous reactant selected to react with said test piece to produce a visible color change of a surface said test piece in the absence of corrosion inhibitor on said surface of said test piece.

6. A method according to claim 5 including using hydrogen sulfide as said gaseous reactant.

7. A method according to claim 6 including producing said hydrogen sulfide gas by reacting acetic acid with an aqueous solution of sodium sulfide.